

Case 3128

Drosophila rufifrons Loew, 1873 and *D. lebanonensis* Wheeler, 1949 (currently *Scaptodrosophila rufifrons* and *S. lebanonensis*; Insecta, Diptera): proposed conservation of the specific names by the designation of a neotype for *D. rufifrons*

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Abstract. The purpose of this application is to conserve the specific names of *Scaptodrosophila rufifrons* (Loew, 1873) and *S. lebanonensis* (Wheeler, 1949) for two European species of lesser fruit fly in the *S. rufifrons* species group (family DROSOPHILIDAE). The lectotype of *S. rufifrons* is now known to be a specimen of *S. lebanonensis*, rendering the name *rufifrons* a senior synonym of *lebanonensis*. It is proposed that the lectotype of *rufifrons* be set aside and a neotype designated in accord with accustomed usage.

Keywords. Nomenclature; taxonomy; Diptera; DROSOPHILIDAE; lesser fruit flies; *Scaptodrosophila rufifrons*; *Scaptodrosophila lebanonensis*; Europe.

1. In 1873 Loew (p. 50) described the new species *Drosophila rufifrons* on male and female specimens from the central Balkans area. It is one of the more rare forest species, developing in oozing sap of trees (mainly oak) in central and southern Europe.

2. In 1949 Wheeler (p. 143) described the species *Drosophila lebanonensis* based on a holotype male numbered 1733.1 in the *Drosophila* Type and Reference Collection of the University of Texas, Austin, Texas. There is also a series of paratype males and females; all the specimens originated in Beirut, Lebanon. This is a Mediterranean-Submediterranean lesser fruit fly which develops in fermenting fruits, and is commonly found in fruit stores such as cellars. It is an important species in the study of evolutionary biology, morphogenetics and physiology, and has been kept as laboratory stock for more than five decades. The species is the most frequently quoted representative of the genus *Scaptodrosophila* Duda, 1923.

3. In 1982 I (Bächli, p. 295) designated a lectotype for *Scaptodrosophila rufifrons* (Loew, 1873). This was a specimen (misprinted as ♀ and corrected to ♂ in Bächli, 1984, p. 254) in the Zoological Museum, Berlin, labelled: (1) 'Kasan 20.6.71'; (2) 'Coll. H. Loew'; (3) [Loew's handwriting] '?*Drosoph.* n.sp.'; (4) '*D. rufifrons* Lw. det. Dr O. Duda'; (5) ♂; (6) '*D. rufifrons* Lw. lectotypus, G. Bächli det. 1982'; (7) 'Zool. Mus. Berlin'. A recent study of the European species of the *Scaptodrosophila rufifrons*-group (see Papp, Rácz & Bächli, in press) has shown that the lectotype of *S. rufifrons*, which is the single extant original specimen, is a specimen of the species known as *Scaptodrosophila lebanonensis* (Wheeler, 1949).

4. The specific names of *Scaptodrosophila rufifrons* (Loew, 1873) and *S. lebanonensis* (Wheeler, 1949) are currently used for two distinct species which are ecologically separated and have never been confused. The species *S. rufifrons* was identified widely in Europe by several authors in the 1920's, and the name has been consistently in use from at least Duda's (1934–1935) revision of the family DROSOPHILIDAE. The name *S. rufifrons* has been mentioned in at least 155 publications, the vast majority of which date from the last 50 years, and *S. lebanonensis* has been used in at least 107 publications; lists of these publications are held by the Commission Secretariat. The name *S. rufifrons* has been used in the following recent representative works: Pelandakis & Solignac (1993), Gross & Christian (1994), Merçot et al. (1994), Franzen (1996), Gillies & Hardy (1997) and Máca (1997). The name *S. lebanonensis* has appeared in Albalat & Gonzalez-Duarte (1993), Kwiatowski, Skarecky, Bailey & Ayala (1994), Tamura, Toba, Park & Aotsuka (1996), Herrewége & David (1997) and Remsen & DeSalle (1998).

5. Recognition that the lectotype of *Scaptodrosophila rufifrons* (Loew, 1873) designated by me (Bächli, 1982) is a specimen of *S. lebanonensis* (Wheeler, 1949) as always understood means that the name *S. rufifrons* becomes formally a senior subjective synonym of *S. lebanonensis*. The name *S. rufifrons* would become valid for the species currently known as *S. lebanonensis*, and a new name would be required for *S. rufifrons* as currently understood. *Drosophila nitens* Buzzati-Traverso, 1943 (p. 38) is the only available name for the species currently known as *S. rufifrons* but it has never been used for the taxon. Moreover, the syntypes of this nominal species, formerly in the Istituto di Zoologia e Genetica della R. Università di Pavia, Italy, are missing and presumed lost.

6. The loss of the name *Scaptodrosophila lebanonensis*, the transfer of the frequently used name *S. rufifrons* from the one species to the other, and the introduction of the unused name *S. nitens* in place of *S. rufifrons* as currently understood, would all inevitably cause disruption and confusion, affecting both the two species involved and species of *Scaptodrosophila* in general. I propose that the lectotype of *S. rufifrons* be set aside and that a neotype be designated in accord with the accustomed usage of the name. This action would remove *rufifrons* from the synonymy of *lebanonensis*, so allowing the usages of both names to continue. The proposed neotype is a male specimen in the Hungarian Natural History Museum, Budapest, labelled as 'Neotype' on a red-margined card, and with label data: (1) K[iskunsági] N. P.: Kunfehértó, *Morus alba* kicsorgó nedvén [oozing sap]; (2) 1982. VI. 15–23., leg. Papp L.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous type fixations for the nominal species *Drosophila rufifrons* Loew, 1873 and to designate the male specimen in the Hungarian Natural History Museum, Budapest, referred to in para. 6 above, as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *rufifrons* Loew 1873, as published in the binomen *Drosophila rufifrons* and as defined by the neotype designated in (1) above;
 - (b) *lebanonensis* Wheeler, 1949, as published in the binomen *Drosophila lebanonensis*.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).